L 6938-66

ACCESSION NR: AT6011176

ENCL: 01
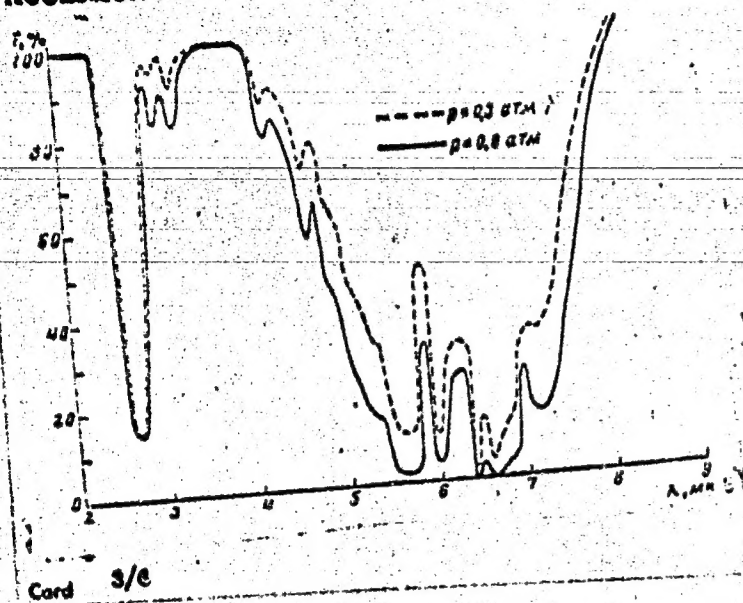

Fig. 1. Spectral transmission of radiation in the range 2-8.5μ by water vapor bands for a precipitable layer of water μ = 0.2 cm for two pressures at heights of 10 and 1 km. A) atm; B) μ.

Card 3/6

L 6938-66

ENCL: 02
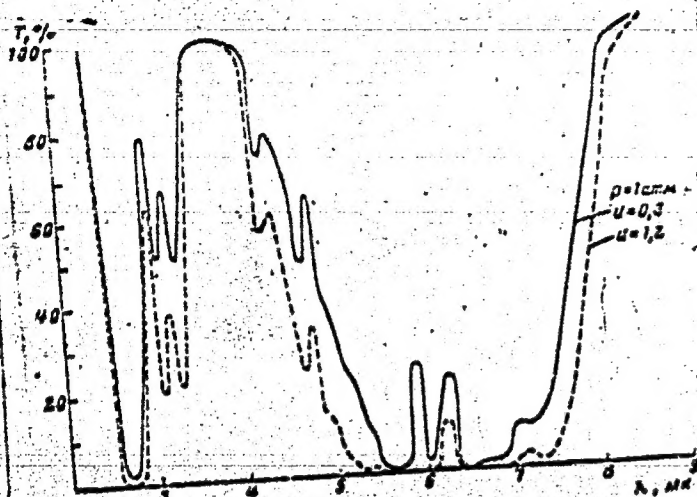
Fig. 2. Spectral transmission of radiation in the range 2-8.5μ by water vapor bands in the surface layer for two values of the precipitable layer of water: A) atm; B) μ.

p=1 атм
u=0,3
u=1,2

T, %
100

80

60

40

20

λ, μ

Card   4/6

L 6938—66

ACCESSION NR: AT6011176

ENCL: 03
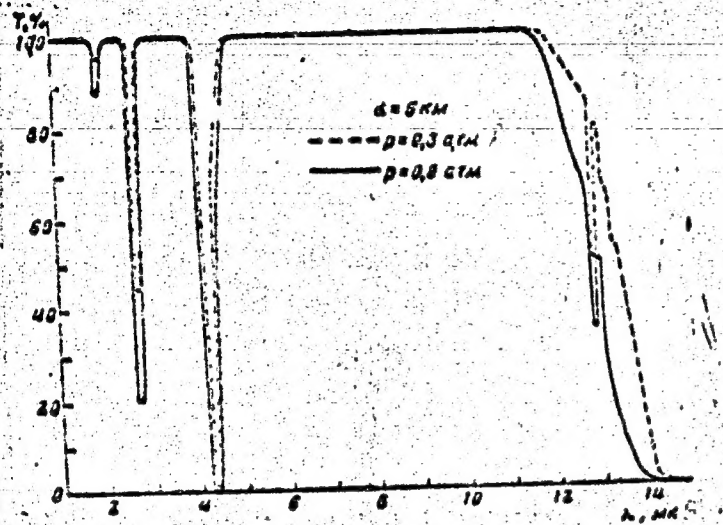
Fig. 3. Spectral transmission of radiation in the range 1-15μ by carbon dioxide bands at a distance d = 5 km at heights of 10 and 1 km. A) atm; B) μ.

d = 5 км
- - - p = 0,3 атм
——— p = 0,8 атм

Card 5/6

L 6938-66

ENCL: 04
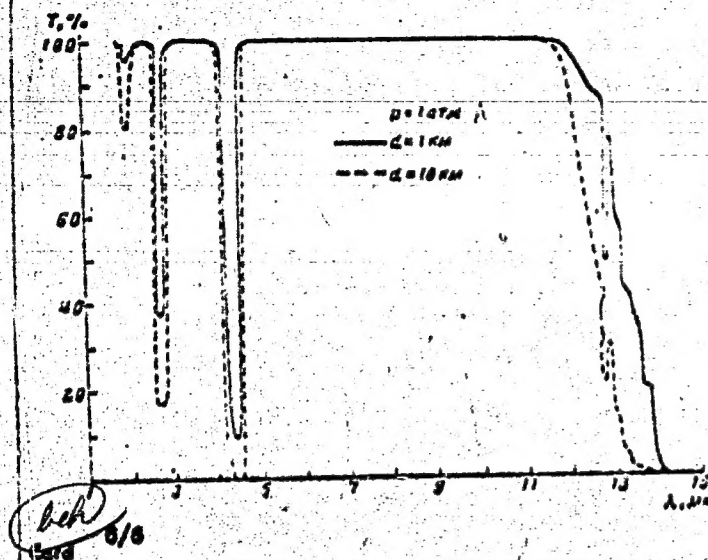
Fig. 4. Spectral trans-
mission of radiation in
the range 1-15µ by carbon
dioxide bands in the sur-
face layer at a distance
d = 1 and 10 km. A) atm;
B) µ.

ZUYEV, . . .; ORLILV, B.F.; TVOROGOV, S.D.; KHMELEVTSOV, S.S.

Attenuation of the visible and infrared radiations by artificial water fogs. Izv. AN SSSR. Fiz. atm. i okeana 1 no.5:509-516 My '65.
(MIRA 18:8)

TVOROGOV, S.D.

Determining the coefficient of light attenuation by a particle.
Izv. vys. ucheb. zav.; fiz. 8 no.3:147-148 '65. (MIRA 18:9)

1. Sibirskiy fiziko-tekhnicheskiy institut imeni V.D. Kuznetsova.

TVOROGOV, S.D.

Scalar approximation in the problem involving the scattering of
a plane light wave on a sphere. Izv.vys. ucheb. zav.; fiz. 8 no.3:
175-176 '65. (MIRA 18:9)

1. Sibirskiy fiziko-tekhnicheskiy institut imeni V.D.Kuznetsova.

L 62995-65 EWT(1)/FCC GW

ACCESSION NR: AP5014228   UR/0362/65/001/005/0509/0516

AUTHOR: Zuyev, V. Ye.; Koshelev, B. P.; Tvorogov, S. D.; Khmeltsov, S. S.

TITLE: Attenuation of visible and infrared radiation by artificial fogs

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 1, no. 5, 1965,
509-516

TOPIC TAGS: cloud physics, fog, IR radiation, atmospheric physics, atmospheric
optics

ABSTRACT: The optical and microphysical properties of fog were investigated
theoretically and experimentally by a group associated with the Siberian Physi-
cotechnical Institute. Data on the attenuation of visible and infrared radiation
in fogs calculated with allowance for polydispersion and absorption in water
droplets were compared with results of experimental determinations of the
spectral transmittance of artificially created fog.

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L 62995-65

ACCESSION NR: AP5014228

In the theoretical part of the study, approximate expressions were de-
rived for determining the aerosol attenuation $\alpha(\lambda)$ of clouds and fog. Cal-
culations were performed for values of λ ranging from 0.5 to 14 microns
and for values of r (the most probable distribution radius) and μ (param-
eter characterizing the distribution half-width) of the drop-size distribution
function of natural water clouds and fog. Parameter r ranged from 2 to
10 microns, and μ, from 1 to 10 microns. Figs. 1 and 2 show the results
of calculations of $\alpha(\lambda)/\alpha(0.5)$ for wavelengths ranging from 1 to 14 microns.
It is evident from the figures that the spectral behavior of the relative
attenuation essentially depended on the parameters of the drop-size distri-
bution function.

On the basis of an analysis of the theoretical results, the following con-
clusions were drawn: 1. In the visible region, $\alpha(\lambda)$ is practically independ-
ent of wavelength for all clouds and fogs. 2) In the 10.5 — 12.2-micron
region, transmittance is higher than it is in the visible region. 3) With

Card 2/6
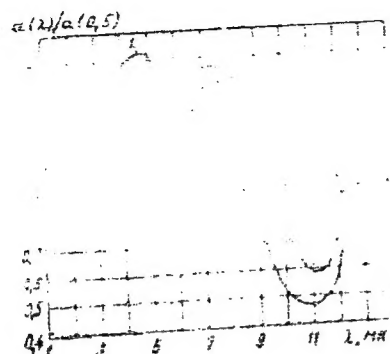
L 62995-65
ACCESSION NR: AP5014228

$a(\lambda)/a(0,5)$

$a(\lambda)/a(0,5)$

$\mu < 10$

Fig. 1. Calculated relative attenuation as a function of wavelength for $\mu = 2$

1 - r = 2; 2 - r = 3; 3 - r = 4;
4 - r = 5; 5 - r = 8; 6 - r = 10.

Fig. 2. Calculated relative attenuation as a function of wavelength for $\mu = 10$. Designations of curves are the same as in Fig. 1.

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L 62995

ACCESSION NR: AP5014228

increased distribution half-width (decreased v) or r, the transmittance maximum shifts toward the longer-wave region, but does not go beyond 10--12 microns.   4) In the 1--5-micron region, transmittance for any microstructure characteristics is lower than it is in the visible region. The ratio $\alpha(\lambda)/\alpha(0.5)$ reaches its maximum of 1.76 at $\lambda = 3.5$ microns and $v = 10$, $r = 2$ microns.   5) In the spectral regions of 5—10.5 and 12.2—14 microns, transmittance depends on microstructure parameters and can either be higher or lower than it is in the visible region.   6) The spectral behavior of the aerosol attenuation parameters. In the case of large-drop clouds ($r = 5$—10 microns) with a small distribution half-width ($v = 10$), the aerosol attenuation is neutral throughout the investigated range.   7) The aerosol attenuation is neutral within water absorption bands is a measure of transmittance. The transmittance within data is governed chiefly by the behavior of the complex refractive index.

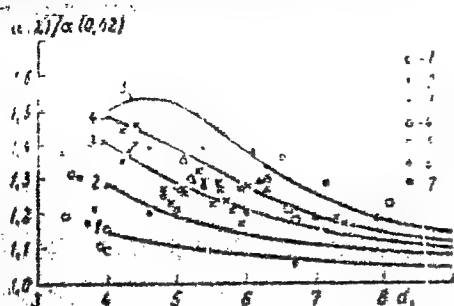Card 4/6

L 62995-65

ACCESSION NR: AP5014228

Fig. 3.   Comparison of experimental and theoretical relative attenuation as a function of RMS values of fog particle diameters for $\lambda = 2.6$ microns
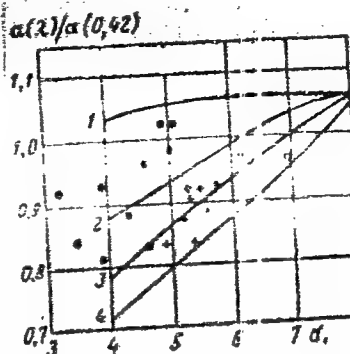

Fig. 4.   Comparison of experimental and theoretical relative attenuation as a function of RMS values of fog particles for $\lambda = 14$ microns

Symbols represent the results of experimental measurements. Solid curves are calculated for various u. 1 – $u = 1$; 2 – $u = 2$; 3 – $u = 3$; 4 – $u = 4$; 5 – $u = 5$; 6 – $u = 6$; 7 – $u = 7$.

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L 62995-65
ACCESSION NR: AP5014228

The theoretical results were compared with experimental data obtained
in artificial fogs. The equipment used in the experiments was capable of
measuring fog particles ranging in size from the very largest to 0.8—1.0 mi-
crons in diameter. Over 2000 spectral measurements were made from
800 droplet samples from 120 artificially created fogs. The optical density

mental values of relative attenuation as a function of RMS values of fog-
particle diameters for various u. Figs. 3 and 4 show these values for the
2.6- and 14.0-micron wavelengths. These figures are typical of the satis-
factory agreement between experimental and theoretical values over the
entire investigated range.   Orig. art. has: 4 graphs.

ASSOCIATION: Sibirskiy Fiziko Tekhnicheskiy Institut (Siberian Physical-
Technical Institute)

SUBMITTED: 10Mar64	ENCL: 00	SUB CODE: ES
NR REF SOV: 005	OTHER: 004	FSB v.1,no.9
Card 6/6		

L 54762-65   EWT(1)/FCC   Pi-4   GS/GW
ACCESSION NR: AT5011101   UR/0000/64/000/000/0096/0101

AUTHOR: Zuyev, V. Ye.; Kabanov, M. V.; Koshelev, B. P.; Tvorogov, S. D.; Khme-
levtsov, S. S.

TITLE: Spectral transparency and microstructure of artificial fogs

SOURCE: Mezhvedomstvennoye soveshchaniye po aktinometrii i optike atmosfery.
5th, Moscow, 1963. Aktinometriya i optika atmosfery (Actinometry and atmospheric
optics); trudy soveshchaniya. Moscow, Izd-vo Nauka, 1964, 96-101

TOPIC TAGS: artificial fog, spectral transparency, artificial fog microstructure,
aerosol, fog

ABSTRACT: The article discusses the results of a comprehensive theoretical and
experimental investigation of the optical and microphysical properties of arti-
ficial fogs ... spectral coefficients
of attenuation for a polydisperse medium, ... exist-
... extraction of the fog material. Simultaneously performed meas-
urements of the spectral transparency of the fogs in the visible and infrared
regions of the spectrum as well as microstructural investigations have made it

Card 1/3

L 47763-65
ACCESSION NR: AT5011161

possible to quantitatively compare the theoretical and experimental data. The
calculations show that the spectral variation of the relative attenuation co-
efficient depends greatly on the particle size distribution. In all cases the
transparency of a fog is lower in the $2 - 5\mu$ region than in the visible region,
whereas in the $10 - 12\mu$ region all fogs are more transparent than in visible light
wavelength. In the $5 - 10\mu$ region, the transparency can be either smaller or
greater ... ... essentially by the magnitude
... ... visible light

spectral optical measurements were made in an artificial fog chamber of a
volume, using a specially constructed photometer and an IKS-6 infrared spectrometer
for the measurement of the transparency in the physical and infrared regions.
All optical and microphysical measurements were made for the spectral region near
0.42 and simultaneously in the infrared region at 2.15, 3.7, 5.5, 8.0, 10.0, and
11.8 . The optical density of the fogs ranged from 0.1 to 1.5, and the attenua-
tion for visible light ranged from 2×10^{-4} to 52×10^{-4} cm^{-1}. The agreement
between the experimental and theoretical results is considered to be satisfactory
once account is taken of appreciable experimental errors. Orig. art. has: 4
figures and 10 formulas.   [02]

Card 2/3

L 47753-65

ACCESSION NR: AT5011161

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete (Siberian Physicotechnical Institute at the Tomsk State University)

SUBMITTED: 25Nov64   ENCL: 00   SUB CODE: ES, OP

OTHER: 004   NO REF SOV: 007   ATD PRESS:

Card 3/3

TVOROGOV, S.D.

        Optical properties of aerosol. Trudy Astrofiz.inst.AN Kazakh.
        SSR 3:105-107 '62.   (MIRA 16:11)

TVOROGOV, S.D.

On certain representations of an analytic expression for the coefficient of light attenuation of the aerosol component of the atmosphere. Izv.vys.uch.zav.; fiz. no.4:175-176 '62.

(MIRA 15:9)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni V.V. Kuybysheva.
            (Atmospheric transparency)

S/913/62/003/000/017/033
D405/D301

AUTHOR: Tvorogov, S.D.

TITLE: On calculating the optical characteristics
                 of aerosols

SOURCE: Akademiya nauk Kazakhskoy SSR. Astrofizicheskiy
                 institut. Trudy. v. 3. 1962, Rasseyaniye i
                 polyarizatsiya sveta v zemnoy atmosfere; materialy
                 Soveshchaniya po rasseyaniyu i polyarizatsii
                 sveta v atmosfere. 105 - 107

TEXT: The author derives a formula for the numerical
calculation of the optical characteristics of aerosols whereby
the computational work is considerably reduced as compared to
other formulas for numerical integration; this was proved in
praxis. The deduction of the formula is based on the assumption
that the density of the size distribution function of particles
is described by a normal-logarithmic law. The formula which has
to be integrated is

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S/913/62/003/000/017/033
D405/D301

On calculating the optical ...

$$F(z,t) = e^{-t/4} \cdot \frac{1}{\sqrt{\pi t}} \int_0^\infty \tau^2 e^{-1/t(\ln \tau)^2} K(z,\tau) d\tau. \qquad (3)$$

where $z = 2\pi r/\lambda$; λ is the wavelength of the incident light and K is the extinction function introduced in Mie's theory. After calculations, one obtains the following formula for the numerical integration of (3)

$$\psi_{i,k} = \frac{1}{2^k} \sum_{p=0}^k \varphi_{i-k+2p} \cdot C_k^p, \qquad (10)$$

where C_k^p is the binomial coefficient and ψ is a function which satisfies the heat-flow equation. Formula (10) was obtained by the method of nets. This formula can be also used for calculating the scattering function and other elements of the scattering matrix.

Card 2/2

TVOROGOV, S.D.

Theory of light scattering by a highly disperse system of spherical
particles. Izv.vys.ucheb.zav.; fiz. no.1:87-93 '61.   (MIRA 14:7)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom
universitete imeni V.V.Kuybysheva.
      (Light—Scattering)   (Atmospheric transparency)
                        (Aerosols)

TVOROGOV, S. D.

Possibility for using the method of difference in calculating
the coefficient of light attenuation for the aerosol component
of the atmosphere. Izv. vys. uch. zav.; fiz. 3:174-175 '62.
(MIRA 15:10)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosu-
darstvennom universitete imeni Kuybysheva.

(Atmospheric transparency)   (Aerosols)

TVOROGOVA, A. S.

Yu. A. Orfanitskiy, M. A. Fedchenko, and A. S. Tvorogova on "Soil Problems connected with the problem of clearance types.

report presented at the Conference on Forestry, Arkhangel'sk, 14-15 April 1958 (Vest. Ak Nauk SSSR, 1958, No. 7, pp. 133-4)

16b-0. Tower-Type Recuperative Elec-
tric Furnace for Continuous Bright
Annealing of Sheet Steel. (In Russian.)
O. A. Moschanskogo and I. A. Tvoru-
kaya. *Promyshlennaya Energetika* (In-
dustrial Power), v. 4, Oct. 1947, p. 8-9.

An installation in which the coil
of sheet steel moves first up through
a tower, the top part of which con-
sists of an electric furnace, and
then back down through the same
tower. This causes the heat liberated
from the steel as it moves down-
ward to be quite efficiently picked
up by the steel moving upward,
which latter is only a few inches
away.

S/169/62/000/006/031/093
D228/D304

AUTHOR: Tvorogova, I. A.

TITLE: Abyssal geologic structure of Turkmeniya's north-west
               part according to aeromagnetic data

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1962, 30, ab-
               stract 6A221 (Tr. Vses. n.-i. geol. in-ta, 46, 1961,
               64-71)

TEXT: The results of the interpretation of aeromagnetic survey
data are described. Mass determinations of the Paleozoic basement's
depth were made, and a schematic map was constructed for the depths
of the disturbing bodies. /¯Abstracter's note: Complete transla-
tion._7

Card 1/1

TVOROGOVA, I.A.

Subsurface geology of northwestern Turkmenia according to aeromagnetic
data. Trudy VSEGEI 46:64-71 '61.   (MIRA 14:11)
          (Turkmenistan--Magnetic prospecting)

TVOROGOVA; BADAMYAN; KURNOSOV,M.A.; ZAGATIN,M.F.; REYTMAN,I.M., redaktor; PETROVA,Ye.A., redaktor; TROFIMOV,A.V., tekhnicheskiy redaktor

[Catalog of spare parts for petroleum equipment] Katalog zapasnye k neftianomu oborudovaniiu. Moskva, Gos.nauchno-tekhn.izd-vo neftia-noi i gorno-toplivnoi lit-ry. Pt.2.[Equipment for drilling wells. Section 1. Drill winches. No.2. Four-speed drill winch, model Ll-4M2] Oborudovanie dlia bureniia skvazhin. Section 1. Lebedki burovye. No.2. Lebedka chetyrekhskorostnaia Ll-4M2. 1955. 33 p. Pt.3. [Equip-ment for operating wells. Section 2. Deep well non-insert (pipe) pumps. No.4. NGN2-56. Section 3. Deep well insert pumps. No.5.NGN3-56 3"-1800 (NGB1-56)] Oborudovanie dlia ekspluatatsii skvashin. Section 2. Nasosy glubinnye nevstavye (trubnye). No.4. NGN2-56. 1955.15 p. Section 3 Nasosy glubinnye vstavye. No.5. NGN3-56 "3-1800 (NGV1-56). 1955. 10 p.
(MIRA 9:3)

1. Soyuznefteburmashremont, Gosudarvennyy soyuznyy trest.
(Oil well pumps) (Petroleum industry--Equipment and supplies)

ABRAMOV, M.A.; ALIVERDIZADE, K.S.; AMIROV, Ye.M.; ARENSON, R.I.; ARSEN'YEV,
S.I.; BAGDASAROV, R.M.; BAGDASAROV, G.A.; BADAMYANTS, A.A.; DANIYE-
LYAN, G.N.; DZHAFAROV, A.A.; KAZAK, A.S.; KERCHENSKIY, M.M.; KONYU-
KHOV, S.I.; KRASNOBAYEV, A.V.; KURKOVSKIY, A.I.; LALAZAROV, G.S.;
LARIONOV, Ye.P.; LISTENGARTEN, M.Ye.; LIVSHITS, B.L.; LISIKYAN,
K.A.; LOGINOVSKIY, V.I.; LYSENKOVSKIY, P.S.; MOLCHANOV, G.V.; MAY-
DEL'MAN, N.M.; CKHON'KO, S.K.; ROMANIKHIN, V.A.; ROSIN, I.I.; RU-
STAMOV, E.M.; SARKISOV, R.T.; SKRYPNIK, P.I.; SOBOLEV, N.A.; TARA-
TUTA, R.N.; TVOROGOVA, L.M.; TER-GRIGORYAN, A.I.; USACHEV, V.I.;
FAYN, B.P.; CHICHEROV, L.G.; SHAPIRO, Z.L.; SHEVCHUK, Yu.I.; TSUDIK,
A.A.; ABUGOV, P.M., red.; MARTYNOVA, M.P., vedushchiy red.; DANIYE-
LYAN, A.A.; TROFIMOV, A.V., tekhn.red.

[Oil field equipment; in six volumes] Neftianoe oborudovanie; v
shesti tomakh. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-
toplivnoi lit-ry. Vol.3. [Petroleum production equipment] Obo-
rudovanie i instrument dlia dobychi nefti. 1960. 183 p.
(MIRA 13:4)

(Oil fields--Equipment and supplies)

TVORCGOV, N.N.; KOROLEV, G.V.

Polymerization of highly viscous media and three-dimensional
polymerization. Part 5: Apparatus for studying unsteady state
kinetics (pre- and post-effect) in the case of the polymerization
of polyester acrylates. Vysokom.soed. 6 no. 5:877-882 My '64.
(MIRA 17:5)

1. Institut khimicheskoy fiziki AN SSSR.

L 19394-66 EWT(1)/FCC GW/GS

ACCESSION NR: AT5011170 UR/0000/64/000/000/0224/0226

AUTHOR: Zuyev, V. Ye.; Nesmelova, L. I.; Sapozhnikova, V. A.; Tvorogov, S. D.

TITLE: Calculations of atmospheric transparency for infrared radiation

SOURCE: Mezhvedomstvennoye soveshchaniye po aktinometrii i optike atmosfery. 5th, Moscow, 1963. Aktinometriya i optika atmosfery (Actinometry and atmospheric optics); trudy soveshchaniya. Moscow, Izd-vo Nauka, 1964, 223-286

TOPIC TAGS: infrared radiation, atmospheric water vapor, atmospheric transparency, atmospheric light absorption, atmospheric optics

ABSTRACT: Precise computation of the absorption coefficient and the absorption function for the infrared absorption spectra of the principal absorbing components of the atmosphere is discussed. Such computations require knowledge of a large number of parameters characterizing both the molecule whose absorption spectrum is radiated and the transitions causing the presence of these lines and bands. Since much computation work is involved, simplification has been sought by using models of absorption bands. In this paper, the quasi-statistical model is used (V. R. Stull, P. J. Wyatt, G. N. Plass, Final report of the theoretical study of infrared radiative behavior of flames, 1961). In this approach, the

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L 19394-66
ACCESSION NR: AT5011176

statistical model is applied to a quite narrow spectral range so that, within this interval, any position of lines is equi-probable. The values for water vapor, carbon dioxide and ozone used in this paper were taken from the literature. Computations of absorption in the ozone band were made for heights of 10 and 21 km. The results are shown in Figures 1-4 of the Enclosure. Figures 1 and 2 show the spectrum of the water vapor and carbon dioxide bands (with overlapping taken into account) for pressures of 1 and 0.3 atm. Fig. 3 shows the absorption spectrum of water vapor for different pressures. Fig. 4 shows the absorption of carbon dioxide. Orig. art. has: 4 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete (Siberian Physics and Technology Institute at Tomsk State University)

SUBMITTED: 25Nov64   ENCL: 04   SUB CODE: ES

NO REF SOV: 001   OTHER: 004

Card 2/6

L 19394-66
ACCESSION NR: AT5011176
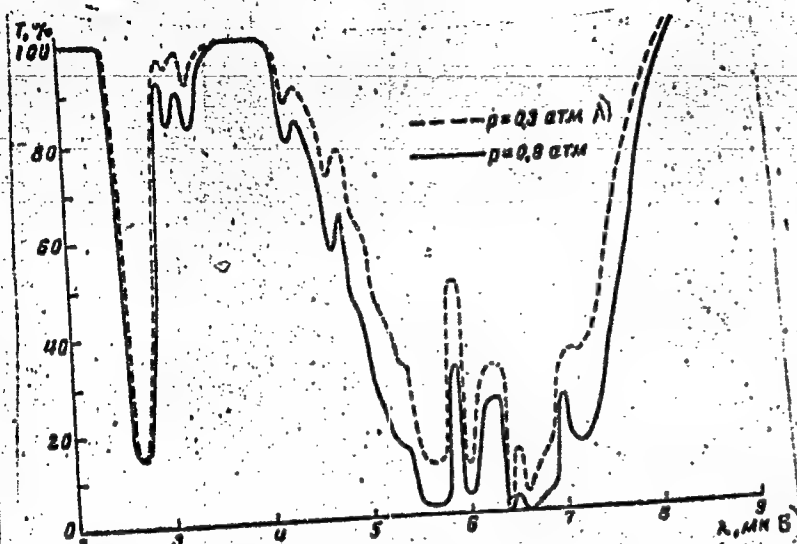
ENCL: 01

Fig. 1. Spectral transmission of radiation in the range 2-8.5µ by water vapor bands for a precipitable layer of water $\mu = 0.2$ cm for two pressures at heights of 10 and 1 km. A) atm; B) µ.

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L 19394-66
ACCESSION NR: AT5011176

Fig. 2. Spectral trans-
mission of radiation in
the range 2-8.5μ by water
vapor bands in the surface
layer for two values of
the precipitable layer of
water; A) atm; B) μ.

$p = 1 atm \mu$ A
$u = 0.3$
$u = 1.8$

$T, \%$

Card   4/8

L 19394-66
ACCESSION NR: AT6011176
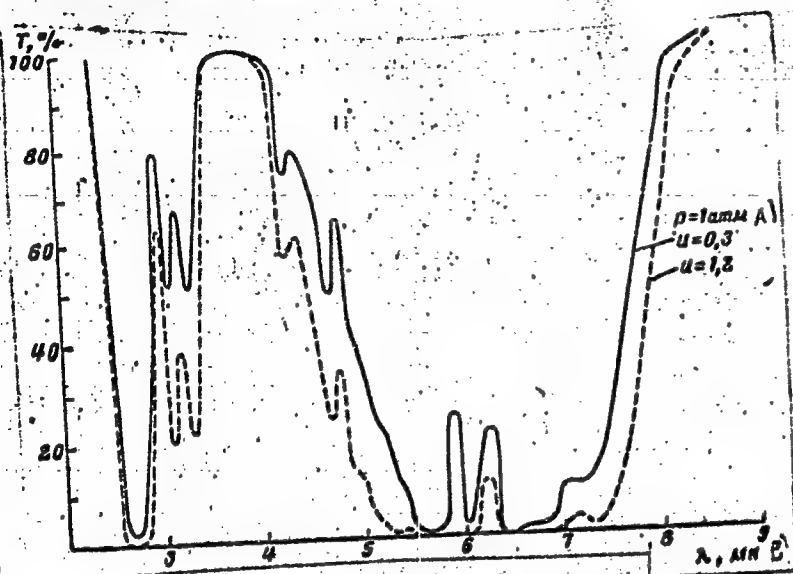
ENCL: 03
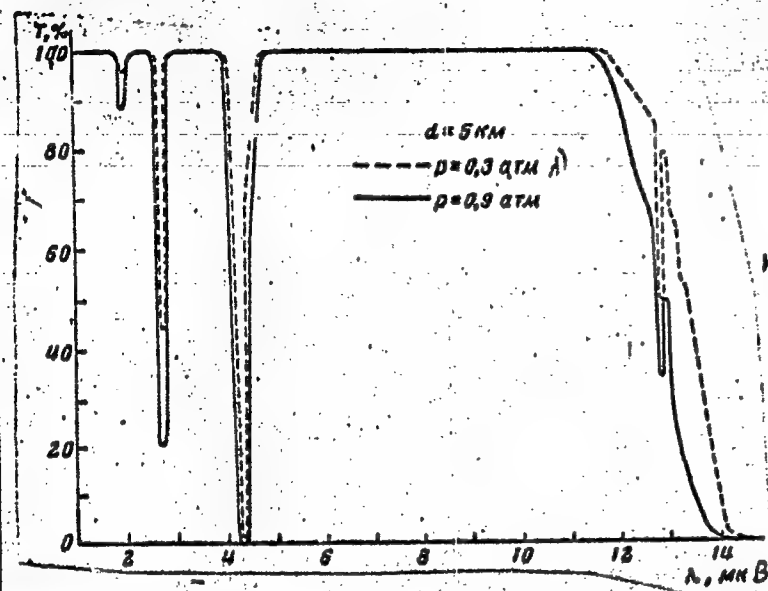
Fig. 3. Spectral trans-
mission of radiation in
the range 1-15μ by carbon
dioxide bands at a dis-
tance d = 5 km at heights
of 10) and 1 km. A) atm;
E) μ.

Card   5/6

ZUYEV, V.Ye.; TVOROGOV, S.D.

Informative announcement on the intercollegiate scientific
conference on the spectral transparency of the atmosphere
in the visible and infrared spectral regions. Izv. vys.
ucheb. zav.; fiz. 8 no.4:185-186 '65.   (MIRA 18:12)

1. Sibirskiy fiziko-tekhnicheskiy institut imeni V.D. Kuznetsova.
Submitted July 16, 1965.

ZUYEV, V.Ye.; KABANOV, M.V.; KOSHELEV, B.P.; TVOROGOV, S.D.; KIMELEVTSOV, S.S.

Spectral transparency and microstructure of man-made fogs.
Part 1. Izv. vys. ucheb. zav.; fiz. no. 2:90-97 '64. (MIRA 17:6)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom
gosudarstvennom universitete imeni V.V.Kuybysheva.

ACCESSION NR: AP4036563   8/0139/64/000/002/0090/0097

AUTHORS: Zuyev, V. Ye.; Kabanov, M. V.; Koshelev, B. P.; Tvorogov, S. D.;
Khmelevtsov, S. S.

TITLE: Spectral transparency and microstructure of artificial fog. 1

SOURCE: IVUZ. Fizika, no. 2, 1964, 90-97

TOPIC TAGS: fog, spectral transparency, infrared spectrometer, photometer, droplet
concentration, water content, spectrometer IKS 6, photometer FEU 22

ABSTRACT: The details of an experimental analysis in the study of artificial fog
microstructure and spectral transparency are presented. All measurements were made
in artificial fog created by evaporation in a 15^{-3} m chamber. An IKS-6 infrared
spectrometer was used to determine transparency in the region $2\text{-}15\ \mu$, and a
photometer FEU-22 was used to determine the transparency in regions 0.42, 0.68, 0.94
and $1.03\ \mu$ with 20-30 m μ width. Probes were placed in the chamber to determine
droplet concentration, droplet distribution functions and parameters, and water
content of the mist. The instruments included flow traps of shaft and reel type,
curvilinear flow traps for fine-droplet capture, and optical instruments with remote
control. An attempt was made to measure spectral transparency simultaneously with

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ACCESSION NR: AP4036563

taking microstructure measurements determined from parameters:

$$q = \frac{\pi}{6}\sum_i n_i d_i^3 ; \qquad d_2 = \sqrt{\frac{\sum n_i d_i^2}{\sum n_i}}; \qquad d_3 = \sqrt[3]{\frac{\sum n_i d_i^3}{\sum n_i}} .$$

where q - water content of fog, d_2 - mean squared diameter, d_3 - mean cubic diameter,
n_i - droplet concentration. The results show that (for droplets with diameters
greater than $3\ \mu$) the capture coefficient of curvilinear flow traps is unity. A
parameter was found for correlating the microstructure data given by: $k_{0.42}/2S_g = C$,
where S_g - geometric cross section of droplet per unit volume, $k_{0.42}$ - attenuation
coefficient, and C varies between 1 and 7. A graph of $k_\lambda/k_{0.42}$ versus λ for
$d_2 = 14\ \mu$ shows a "transmission window" in the vicinity of $10\ \mu$. This "window"
moves towards larger wavelengths as the droplet mean squared diameter increases.
Orig. art. has: 4 figures, 2 formulas, and 1 table.

Card 2/2

ZUYEV, V.Ye.; TVOROGOV, S.D.

Calculating the absorption function for nonuniform paths.
Izv. vys. ucheb. zav.; fiz. 8 no.6:84-86 '65.
(MIRA 19:1)

ABSTRACT: Consideration of atmospheric transparency to inclined beams of light and the theory of radiation transfer in the atmosphere call for the computation of absorption functions for the case of variable pressure paths. In this connection, arguments are offered in favor of applying the method of weighted mean pressure $\bar{p}$

$$\bar{p} = \frac{\int_0^s \rho(s)\, p(s)\, ds}{\int_0^s \rho(s)\, ds},$$

to the problem of calculating the radiation absorption function $H = A(m,\bar{p})$, where H and A are absorption functions in the interval $\Delta\gamma = \nu'' - \nu'$ for the case of variable

Card 1/2

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and constant pressures along the beam path, ν is the frequency, and $m = \int \rho(s)\, ds$ for the case of a constant pressure along the light beam path. Results of calculations using the above formulas and numerical integration were compared and indicate that even under the most adverse conditions the relative error introduced by the derived formulas is of the oreder of 0.003 for spectral intervals of 0.1 μ and practically zero for larger spectral intervals. Orig. art. has: 12 formulas.   [YK]

Card 2/2

L 42072-66   EWT(1)   RO/GW

ACC NR: AP6013466   SOURCE CODE: UR/0139/66/000/002/0143/0150

AUTHOR: Zuyev, V. Ye.; Tvorogov, S. D.

ORG: Siberian Physicotechnical Institute im. V. D. Kuznetsov (Sibirskiy fiziko-tekhnicheskiy institut)

TITLE: The effect of microstructure parameters of water clouds and fogs on their spectral transmittance in the 0.5-14 micron region

SOURCE: IVUZ. Fizika, no. 2, 1966, 143-150

TOPIC TAGS: atmospheric cloud, fog, cloud physics, distribution function, atmospheric refraction, optic transmission, optic spectrum

ABSTRACT: The averaged efficiency factor for radiation attenuation by water clouds and fogs is analyzed by considering their true polydispersion and their complex refractive index. The aerosol coefficients of water clouds and fogs are also examined.

The averaged efficiency factor (F) for radiation attenuation by water clouds and fogs is defined as the ratio of the attenuation coefficient of the aerosol component of the atmosphere to the particle cross section in a unit volume. By considering some special properties of the drop-size distribution function, which can be determined from logarithmically normal and gamma-distribution relations, several formulas are derived

Card 1/7

L 42072-66

ACC NR: AP6013466

for calculating F. These expressions are then used to analyze qualitatively the dependence of F on the microstructure characteristics of water clouds and fogs.

The behavior of function F is analyzed for various values of β and μ, where β is the phase angle and μ is the parameter characterizing the distribution half-width. It is found that with increased β the maximum of F is decreased. This maximum varies with decreased μ, but only for small values of β. Thus, the maximum of F appears to be narrower the smaller the distribution half-width. This indicates that calculations of the spectral transmittance of water clouds and fogs made without considering their microstructure and complex refractive index will not yield reliable results.

Bearing this fact in mind, the aerosol attenuation coefficients $\alpha(\lambda)$ are also calculated and analyzed for various values of μ and r, where r is the most probable particle distribution radius.

The results of the calculations are illustrated in Figs. 1-6. The data presented in these figures cover practically all the different microstructure characteristics encountered in the atmosphere of liquid clouds and fogs.

Card 2/7

L 42072-66
ACC NR: AP6013466

An analysis of the results yields the following conclusions:

In the visible region of the spectrum $\alpha(\lambda)$ and, consequently, the spectral transmittance of clouds and fogs are independent of wavelength.

In the 10.5—12.2 micron region, cloud and fog transmittance is always higher than it is in the visible region. Depending on the parameters of the microstructure, the ratio $\alpha(0.5)/\alpha(10.5-12.2)$ assumes values from 1 to 5. With increased distribution half-width (decreased μ) or increased r, the transmittance maximum shifts toward the longer wave region, but does not go beyond 10—12 microns.

In the 1—5 micron region, cloud and fog transmittance for any microstructure characteristics is lower than it is in the visible region. The ratio $\alpha(\lambda)/\alpha(0.5)$ reaches its maximum of 1.76 at $\lambda = 3.5$ microns, $\mu = 10$, and $r = 2$ microns.

In the spectral regions of 5—10.5 and 12.2—14 microns, transmittance can either be higher or lower, depending on microstructure parameters.

The spectral behavior of the aerosol attenuation coefficients of clouds

Card 3/7

L 42072-66

ACC NR: AP6013466

and fogs in the 3—4 and 10—12 micron regions is determined chiefly by the complex refractive index. In the entire range of wavelengths investigated, $\alpha(\lambda)$ depends essentially on microstructure parameters μ and r. The maximum difference in values of $\alpha(\lambda)$ is observed in the case of small-drop clouds and fogs at $\mu = 10$. In large-drop clouds with a large distribution half-width (r = 8—10 microns, $\mu = 1$—2), the behavior of the aerosol attenuation coefficients is practically independent of wavelength.

The results obtained illustrate the futility of numerous attempts to establish by purely empirical means a correlation between the transmittance and one of the wavelengths in the infrared region or in the visible region. The results, however, can be used to determine this correlation uniquely, provided parameters r and u are given.

Card 4/7

L 42072-66
ACC NR: AP6013466
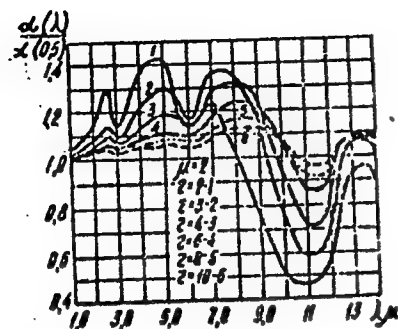
Fig. 1.
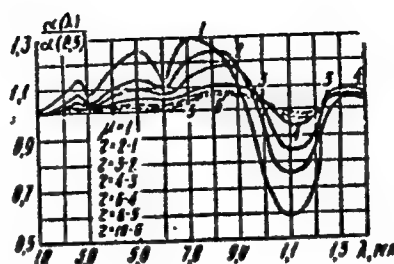
Fig. 2.

Card 5/7

L 42072-66

ACC NR: AP6013466
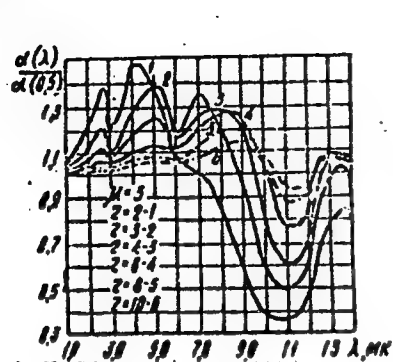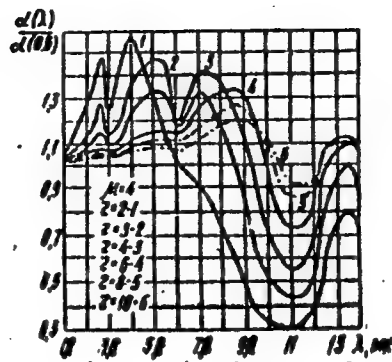
Fig. 3.   Fig. 4.

Card 6/7

I 42072-66

ACC NR: AP6013466
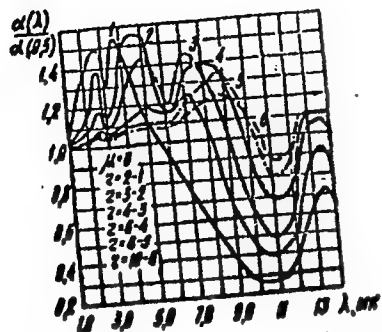
Fig. 5.
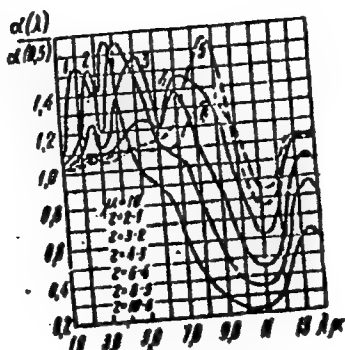
Fig. 6.

Orig. art. has: 14 figures and 14 formulas. [FSB: v. 2, no. 7]

SUB CODE: 04, 02 / SUBM DATE: 15Jul64 / ORIG REF: 014 / OTH REF: 004

Card 7/7 af

L 44211-66   ЕWT(1)/ЕWP   C
ACC NR: AP5021189   SOURCE CODE: UR/0139/65/000/004/0185/018_

AUTHOR: Zuyev, V. Ye; Tvorogov, S. D.

ORG: Siberian Physico-Technical Institute imeni V. D. Kuznetsov (Sibirskiy fiziko-
tekhnicheskiy institut)

TITLE: Scientific conference on spectral transparency of the atmosphere

SOURCE: IVUZ. Fizika, no.,4, 1965, 185-186

TOPIC TAGS: atmosphere, atmospheric optics, atmospheric radiation,
atmospheric transparency, laser radiation, meteorologic conference, molecular
spectroscopy

ABSTRACT: An Interinstitutional Scientific Conference on the Spectral
Transparency of the Atmosphere in the Visible and Infrared Spectral
Regions has been held in Tomsk from 29 June—1 July 1965. Participating
in the conference were 127 representatives from 15 cities; 45 papers
were presented and discussed. The authors of the papers dealt mainly
with the basic processes determining the transparency of the atmosphere:
molecular absorption, scattering of light by aerosol particles, and
propagation of waves in a turbulent dedium. Some papers described new
equipment. It was noted at the conference that modern methods of
molecular spectroscopy are being used in the research work dealing with
the theoretical and experimental analysis of molecular ansorption in the

Card   1/2

atmosphere. Analysis of the problem of light scattering by the particle
system is also making progress from the poing of view of electrodynamic.
Two new scientific and practical problems have begun to attract attention
recently: particular features of the propagation of laser radiation in
the atmosphere and interpretation of the optical and radiation data
of the earth's artifical satellites. Since the problem of atmospheric
transparency has important practical applications, many researchers
have paid particular attention to the quantitative characteristics which
determine the general decrease in the intensity of radiation propagted
in the atmosphere.   [JJ]

SUB CODE: 04, 20 / SUBM DATE: 16Jul65

Card   2/2

SKUZOVATOVA, A.P.; TVOROGOVA, R.S.; MESHCHERYAKOVA, T.I.

Hardening gear wheels with high-frequency currents. Stan.i
instr. 33 no.7:31-32 Jl '62.
          (Steel—Hardening)

(MIRA 15:7)

20

Tower-Type Recuperative Electric Furnace for Continuous Bright Annealing of Sheet Steel. (In Russian.)
O. A. Moschanskogo and I. A. Tvorogova. Promyshlennaya Energetika (Industrial Power), v. 4, Oct. 1947, p. 8-9.

Briefly describes and diagrams an installation in which the coil of sheet steel moves first up through a tower, the top part of which consists of an electric furnace, and then back down through the same tower. This causes the heat liberated from the steel as it moves downward to be quite efficiently picked up by the steel moving upward, which latter is only a few inches away from the former.

METALLURGICAL LITERATURE CLASSIFICATION

3083. TOWER-TYPE RECUPERATIV ELECTRIC FURNACE FOR CONTINUOUS BRIGHT ANNEALING OF SHEET STEEL. Moschanskogo, O. a. and Tvorogova, I. A. (Promyshlennaya Energetika (Industr. Pwr) Oct. 1947, vol. 4, 8-9). Briefly describes and diagrams an installation in which the coal of sheet steel moves first up through a tower, the top part of which consists of an electric furnace, and then back down through the same tower. This causes the heat liberated from the steel as it moves downward to be quite efficiently picked up by the steel moving upward, which latter is only a few inches away from the former.

E.L.R.

BLOKH, G.S.; ZABREBNEVA, A.V.; ZUBAREV, K.A.; PECHURO, S.S.; TVOROGOVA,
     Ye.L.; GNATYUK, T.A.

Producing gypsum fiber sheets on round-screen sheet-making
machines. Stroi. mat. 8 no.2:15-17 F '62.   (MIRA 15:3)
                         (Gypsum products)

Aviamodelizm; sbornik statey. Posobiye dlya rukovoditeley aviamodel'-
nykh kruzhkov i uchiteley (Aircraft Modeling; Collection of Articles.
Textbook for Instructors of Model Aircraft Clubs and Teachers)
Moscow, Uchpedgiz, 1960. 141 p. 12,000 copies printed.

Compilers: E.B. Mikirtumov, Candidate of Technical Sciences, and
M.S. Lebedinskiy, Candidate of Technical Sciences; Ed.:
A.V. Stakhurskiy; Tech. Ed.: V.I. Kornyeyeva.

PURPOSE: This book is intended for instructors and directors of
model airplane clubs sponsored by DOSAAF (All-Union Voluntary
Society for Promotion of the Army, Navy, and Air Force).

COVERAGE: The book consists of 47 articles covering various aspects
of model aircraft design, construction and operation. The text
contains many illustrations and diagrams. No personalities are
mentioned. There are 185 references, all Soviet.

TABLE OF CONTENTS:

27913
S/080/61/034/010/006/016
D245/D302

15.2420

AUTHOR: Tvorogov, N. N.

TITLE: A method of obtaining dielectric layers of alumina

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 10, 1961, 2203-2206

TEXT: Dielectric Al_2O_3 layers on Ta and W surfaces were prepared by thermal dissociation in vacuo of $Al(OC_2H_5)_3$. These layers had high density, transparency and clearly defined crystalline structure. Preparation of similar layers of SiO_2 and B_2O_3 by the author, described in previous papers (Ref. 1: ZhPKh, v. 32, 1959, 1043) and (Ref. 2: ZhPKh, v. 33, 1960. 2778) is mentioned. Comparison of the properties of compounds of the type $Me(OR)_n$ for R = Al, B and Si and for R = Ti, Zr and similar elements sug- gests the possibility of applying similar techniques to preparing oxide layers of these elements. There are 1 figure, 1 table and 10 references: 7 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language

Card 1/2

SOKOLENKOV, V.A.; TVORTSOV, M.K.

Seminar on standardization in Chuvashia. Standartizatsiia 27
(MIRA 16:4)
no.2:52-53 F '63.

(Chuvashia—Standardization)

ZUYEV, V. Ye.; KABANOV, M. V.; KOSHELEV, B. P.; TVOROGOV, S. D.; KHMELEVTSOV, S. S.

"The influence of microstructure parameters of clouds and fogs on their spectral transmission in Region 0.5-14 Microns."

report presented at the Atmospheric Radiation Symp, Leningrad, 5-12 Aug 64.

BLOKH, G.S.; ZAGREBNEVA, A.V.; TVOROGOVA, Ye.L.

Filtration properties of gypsum fiber suspensions. Trudy NIIasbest-tsementa no.17:90-102 '63.   (MIRA 17:10)

TVOROVSKIY, S.Ye., inzh.; VALLER, I.N., inzh., BAR, A.K., inzh.,
GUNYAN, M.D., inzh.

Centralized grinding of metal-cutting tools. Mashinostroenie
no.5:7-8 S-O '65.   (MIRA 18:9)

TVRDA, T.

"Amount of Convex Figures." p. 218, (MATEMATICKO-FYZIKALNY CASOPIS, Vol. 4, No. 4, 1954, Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4 No. 5, May 1955, Uncl.
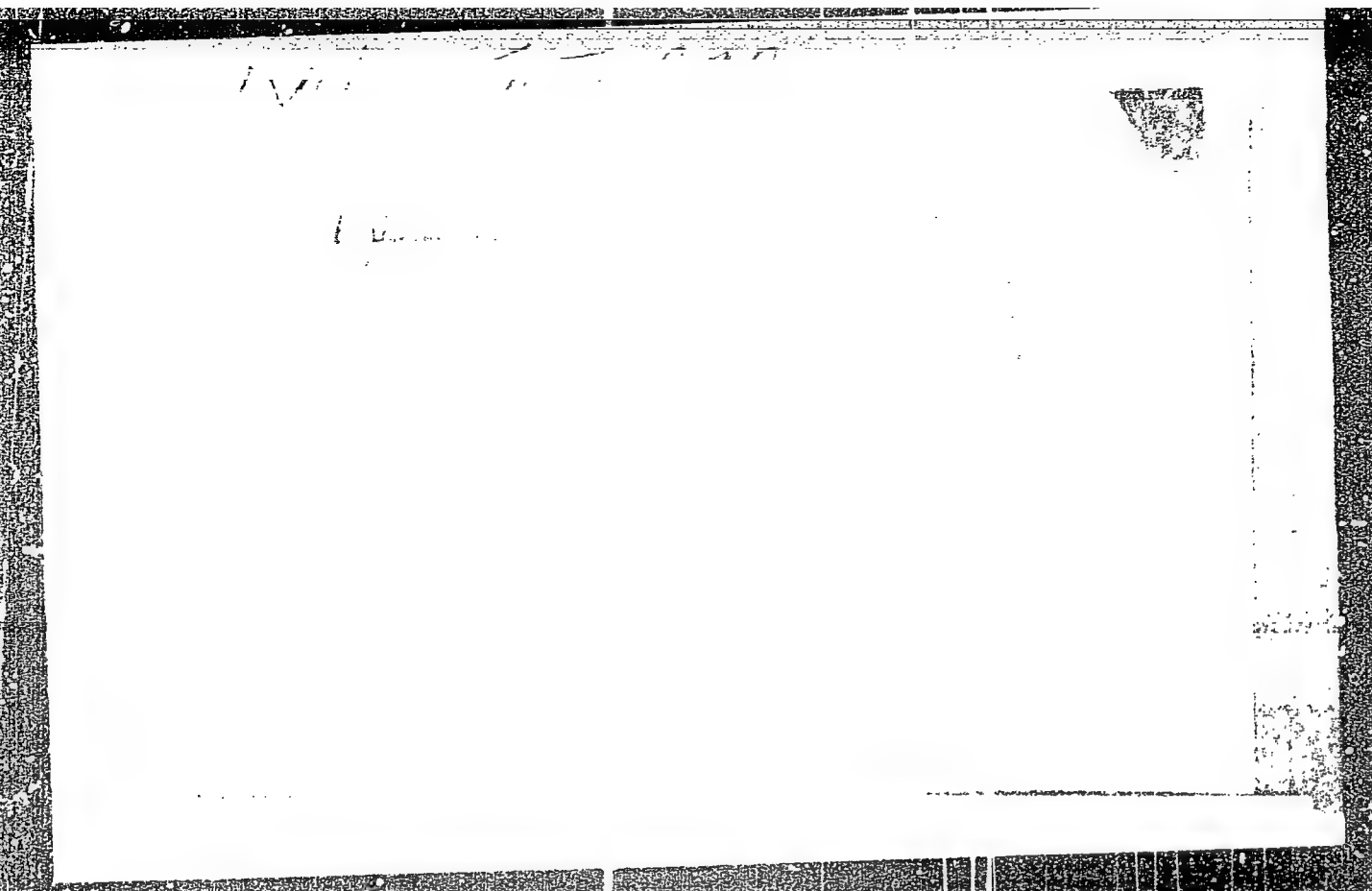
Randpunkte und $\overline{AB}$ zwei Intervalle, die kein Punkt mit der
gemein... hat... Ferner möge die Punktmenge Φ mit dem

eine konvexe Figur (4) Sind Ψ und ... die keinen Punkt der Geraden g enthalten und ist ... Randpunkte gemein-

L 23538-66   EWT(1)/T   JK

ACC NR: AP6013988   SOURCE CODE: UR/0216/65/000/001/0066/0074

AUTHOR: Satarova, N. A.; Tvorus, Ye. K.--Tvorus, E. K.

31

ORG: Institute of Plant Physiology, AN SSSR, Moscow (Institut fiziologii rastenii
AN SSSR)

TITLE: Effect of high temperatures and drought on RNA content and protein synthesis
in plants

SOURCE: AN SSSR. Izvestiya. Seriya biologicheskaya, no. 1, 1965, 66-74

TOPIC TAGS: biosynthesis, protein, RNA, nucleic acid, plant metabolism

ABSTRACT: Until recently the depression of growth processes and marked dis-
turbances in protein synthesis under the influence of drought and elevated
temperatures have not been considered from the standpoint of a relationship
between the protein problem and the metabolism of nucleic acids. Now it is
known that growth, formative processes, and productivity in plants are very
closely related to protein synthesis, in which RNA participates. The authors
describe the results of an experimental investigation of the effect of a
temporary (12-24-hr) increase in temperature (to 40-42 C) and of atmospheric
drought on the RNA and protein content of the leaves of the potato plant.
It is found that then the protein partially decomposes while the RNA content
remains essentially the same and, in the leaves of temperature-hardened and

Card 1/2

UDC: 581.19: 612.015.33

2.

L 23538-66

ACC NR: AP6013988   0

ZnSO-treated plants, it is higher than in the leaves of control plants.
Further, RNA content decreases with increasing age of plants. Experiments
with N^{15} showed the existence of a correlation between RNA content and the
rate of protein synthesis. The decrease in the enrichment of protein with
N^{15} in the upper leaves following the drought indicates that in the
complex chain of the protein synthesis reaction there exists a link more
sensitive to the effect of high temperatures than the total RNA. Orig. art.
has: 2 figures and 5 tables. [JPRS]

SUB CODE: 06 / SUBM DATE: 05Feb63 / ORIG REF: 020 / OTH REF: 014

Card 2/2

VESELY,Ct.; TVRDEK,V.; TVRDKOVA,E.

Contribution to the treatment of trichomonal discharge. Cesk. gyn. 25[39] no. 1/2:120-122 Mr '60.

1. II. gyn.-por. klinika KU, prednosta prof. MUDr. J.Lukas, Dr. Sc.
(TRICHOMONAS INFECTIONS ther.)
(LEUKORRHEA ther.)
(ANTIMALARIALS ther.)

TVRDIK, F.

Weather report and meteorologic dispatch. (To be contd.) P. (3) of cover.
METEOROLOGICKE ZPRAVY. Vol. 6, No. 2, May 1953

SO: Monthly East European Accession (EEAL), LC, Vol. 4, No. 9, Sept. 1955 Uncl.

TVRDIK, F.
Tvrdik, F.

Weather report and meteorologic dispatch. (To be contd.) p.(3) of cover.

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 4, No. 9,
    Sept. 1955, Uncl.

TVRDIK, V.

"Automatic dosing scales for loose materials."

AUTOMATISACE, Praha, Caechoslovakia, Vol. 2, no. 5, May 1959

Monthly List of East European Accessions Index (EEAI), LC, Vol. 8, No. 8, August 1959

Unclassified

S/194/62/000/007/033/160
D295/D308

AUTHORS: Smejkal, Jaromír, and Tvrdík, Václav

TITLE: Inductive indicator

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
              no. 7, 1962, abstract 7-2-43 sh (Czech. pat. cl. 21 g,
              30/10; 21 c, 40/01, no. 97224, Nov. 15, 1960)

TEXT: The object of the patent is an inductive indicator for the
detection of metallic and ferromagnetic bodies. The indicator is
a transformer with an open magnetic circuit. To increase sensitivi-
ty; a compensation-type measurement method is introduced. Close to
the gap of the magnetic circuit is situated a compensation core
with a compensation winding connected in series with the secondary
winding of the transformer, so that the emf's induced by the prima-
ry winding in the secondary and compensation windings are subtrac-
ted. The number of turns of the secondary and compensation windings
are so chosen that in the absence of metallic bodies the resulting
emf is close or equal to zero. When a metallic body is present, the
reluctance of the magnetic circuit of the secondary winding is
Card 1/2

Inductive indicator

S/194/62/000/007/033/160
D295/D308

lowered and the magnetic flux through the secondary winding increa-
ses; at the same time the flux through the compensation winding
decreases and an output voltage arises. 1 figure. [Abstracter's
note: Complete translation.]

Card 2/2

LOCHMAN, Josef, inz.; TVRDIKOVA, Alena, promovany chemik;
MELICHAROVA, Aleska

Consumption of nutritive substances by red deer (Cervus e
elaphus L.). Les cas 10 no.5:495-522 My '64.

1. Research Institute of Forestry and Game Protection,
Zbraslav.

VESELY,Ct.; TVRDEK,V.; TVRDKOVA,E.

Contribution to the treatment of trichomonal discharge. Cesk.
gyn. 25[39] no. 1/2:120-122 Mr '60.

1. II. gyn.-por. klinika KU, prednosta prof. MUDr. J.Lukas, Dr. Sc.
    (TRICHOMONAS INFECTIONS ther.)
    (LEUKORRHEA ther.)
    (ANTIMALARIALS ther.)

TVRDON, J.

GEOGRAPHY & GEOLOGY

TVRDON, J. Leos Janacek in the Domanova Caverns. P. 448

Vol. 35, no. 12, Dec. 1958

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 4, April 1959

TVRDON, J.

GEOGRAPHY & GEOLOGY

Periodicals: KRASY SLOVENSKA. Vol. 35, No. 12, Dec., 1958.

TVRDON, J. Leos Janacek in the Demanova Caverns. p. 448.

Monthly Lists of East European Accessions (EEAI) LC Vol. 8, No. 4, April 1959.
                                                            Unclass.

PROCHAZKOVA, M.; TVRDONOVA, M.

Effect of 3-acetylpyridine on glycemia in normal and adrenalec-
tomized rats. Sborn. lek. 67 no.2;:51-54 F '65.

1. Laborator pro endokrinologii a metabolismus fakulty vseobec-
neho lekarstvi University Karlovy v Praze (prednosta: akademik
J. Charvat).

TVRTKOVIC, Reuf, sanitetski pukovnik

The problem of the extensive number of sick call in the army.
Vojnosanit. pregl. 21 no.12:782-785 D'64.

TVRTKOVIC, Reuf, sanitetski pukovnik, dr.; TOMASEVIC, Milorad, sanitetski
major, dr.

Some clinical and epidemiologic aspects of the atypical pneumonia
syndrome. Vojnosanit. pregl. 22 no.4:223-229 Ap'65.

1. Interno odeljenje, Vojna bolnica u Sarajevu.

TVRTKOVIC, Reuf, d-r.

Two case reports on Henoch-Schonlein syndrome. Med. arh., Sarajevo
11 no.3:33-38 May-June '57.

1. Interno odeljenje Vojne bolnice Sarajevo. Nacelnik: d-r Baruh
David.
   (PURPURA, NONTHROMBOPENIC, case reports
    Schoenlein-Henoch's syndrome (Ser))

TVRTKOVIC, Reuf, Dr.; SERDAREVIC, Hisam, Dr.

Problems of syndrome of atypical pneumonia. Med. arb.,
Sarajevo 10 no.1:27-40 Jan-Feb 56.

1. (Interno odjeljenje Vojne bolnice Sarajevo).
        (PNEUMONIA, PRIMARY ATYPICAL,
                (Ser))

TVRTKOVIC, Rifat Dur.

Some aspects of managing wounded and sick during the Skoplje earthquake. Vojnosanit. pregl. 21 no.7:192-198 Jl-Ag '64.

JEVTIC, Zivojin; TVRTKOVIC, Rifat; PRCIC, Mithat; TRNINIC, Borivoje

3 Cases of Pierre-Marie-Bamberger disease. Srpski arh. celok. lek.
89 no.10:1207-1212 O '61.

1. Hirurska klinika Medicinskog fakulteta Univerziteta u Sarajevu
Upravnik: prof. dr Feodor Lukac.

(OSTEOARTHROPATHY HYPERTROPHIC PULMONARY case reports)

SATAROVA, N.A.; TVORUS, Ye.K.

Effect of high temperature and drought on the RNA content and
protein synthesis in plants. Izv. AN SSSR Ser. biol. 30 no.1:
66-74 Ja-F '65.   (MIRA 18:2)

1. Institute of Plant Physiology, Academy of Sciences of the
U.S.S.R., Moscow.

HRUBY, St.

SURNAME (in caps); Given Names

Country: Czechoslovakia

Academic Degrees: /not given/

Affiliation: Faculty of Medical Hygiene (Lekarska fakulta hygienicka), KU /Karlova universita; Charles University/, Prague.

Source: Prague, Ceskoslovenska Hygiena, Vol VI, No 5, 1961, pp 310-314.

Data: "Sterilization of Spices by Means of Ethylene Oxide."

Co-athors:

MARESOVA, P., Deperatment of Hygienical Diet (Oddeleni hyg. vyzivy), Institute of Hygiena (Ustav hygieny), Prague.

TVRZNIK, D., Central Bohemian Fruta National Enterprise (Stredoceska Fruta, n.p.)

, 83

MUREK, Henryk, inz.; TWARDAWA, Bernard, mgr inz.

Modernization of a soda exchanger station for water softening.
Energetyka przem 10 no.8:289-290 Ag '62.

MUREK, Henryk, inz.; TWARDAWA, Bernard, mgr inz.

Rational water management in industrial plants. Gosp paliw
11 no.4:143-145   Ap '63.

TWARDOCH, Szczepan

Treatment of postoperative duodenal fistulae by the irrigation with
lactic acid solutions. Pol. przegl. chir. 34 no.10:997-1000 '62.

1. Ze Szpitala Miejskiego Nr 2 w Tarnowskich Gorach.Ordynator: dr
J. Scierski.
(POSTGASTRECTOMY SYNDROMES)   (LACTATES)   (INTESTINAL FISTULA)
(DUODENAL DISEASES)

TWARDOCH, Szczepan

Effect of mechanical low frequency vibration on articular changes in rat extremities. Med. dosw. microbiol. 17 no.1:77-84 '65.

1. Z Zakladu Anatomii Prawidlowej Slaskiej Akademii Medycznej w Zabrzu (Kierownik: prof. dr. S. Kohmann).

GNILKA, Tadeusz; TWARDOSZ, Wladyslaw; ADAMSKI, Cyryl

Results of immediate and remote surgery of urological lesions
following gynecological operations. Pol. tyg. lek. 18 no.32:
1194-1196   5 Ag '63.

1. Z II Kliniki Poloznictwa i Chorob Kobiecych AM w Poznaniu;
kierownik: doc. dr E. Howorka i z I Kliniki Chirurgicznej AM
w Poznaniu; kierownik: prof. dr St. Nowicki.
        (HYSTERECTOMY)   (BLADDER DISEASES)   (URETER)
        (WOUNDS AND INJURIES)   (VESICOVAGINAL FISTULA)
        (POSTOPERATIVE COMPLICATIONS)   (IATROGENIC DISEASE)

TWARDOSZ, Wladyslaw; GNILKA, Tadeusz

Functional disturbances of the urinary bladder and upper
urinary tracts after radical excision of genital organs
in cancer of the cervix uteri. Pol. przegl. chir. 37 no.7:
689-692 Jl '65.

1. Z I Kliniki Chirurgicznej AM w Poznaniu (Kierownik: prof.
dr. S. Nowicki) i z II Kliniki Poloznictwa i Chorob Kobiecych
AM w Poznaniu (Kierownik: prof. dr. E. Howorka).

TWARDOSZ, Władysław

Leiomyoma of the bladder. Fol. przegl. chir. 36 no.5:717-719 My '64.

1. Z I Kliniki Chirurgicznej Akademii Medycznej w Poznaniu (Kierownik: prof. dr S. Nowicki).

TWARDOWSKA, I.

Investigating the leaking of salt water through spruce wood.   p. 139

ROCZNIKI NAUK LESNYCH   Vol. 9, 1954

Poland

SOURCE: EEAL Vol 5, No. 10 Oct. 1956

TWARDOWSKI, KRZYSZTOF

SURNAME, Given Names

(5)

Country: Poland

Academic Degrees:

Affiliation:

Source: Warsaw, Medycyna Weterynaryjna, Vol XVII, No 8, August 1961,
pp 463-466.

Data: "Activity of the Lyophilized Strain F_{107} of the Newcastle Disease
Virus at Various Temperatures."

Authors:
BORZEMSKA, Wanda.
MAREK, Kazimierz, Docent dr., Director of the Department of Poultry
Diseases (Zaklad Chorob Drobiu), Veterinary Research Institute
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TWARDOWSKI, Krzysztof, Magister, Director of the Branch Testing
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Egg Industry (Przemysl Jajowy-Drobiarski), Poznan.

ofo 981443

KOWALSKI, Edward; TWARDOWSKI, Zbylut

Uteroplacental apoplexy complicated by acute non-inflammatory renal failure. Pol. tyg. lek. 20 no.32:1210-1211 9 Ag '65.

1. Z II Kliniki Poloznictwa i Chorob Kobiecych AM w Krakowie (Kierownik: prof. dr. Maksymilian Seidler (obecnie doc. dr. Jerzy Zamello)) i z Osrodka dializy pozaustrojowej (Kierownik: doc. dr. Zygmunt Hanicki) przy II Klinice Chorob Wewnetrznych AM w Krakowie (Kierownik: doc. dr. Stanislaw Kirchmayer).

HANICKI, Zygmunt; PACZEK, Zuzanna; WIERNIKOWSKI, Adam; HIRSZEL, Przemyslaw;
TWARDOWSKI, Zbylut; BOGDAL, Jozef; DUZYK, Krystyna

Result of activities of the center of extracorporeal dialysis
in Krakow. Pol. tyg. lek. 19 no.35:1330-1331 31 Ag '64.

1. Z II Kliniki Chorob Wewnetrznych Akademii Medycznej w
Krakowie (kierownik: doc. dr med. St. Kirmayer).

TWARDOSZ, Wladyslaw

A ureter located behind the inferior vena cava. Pol. przegl. chir. 34 no.8:829-831 '62.

1. Z I Kliniki Chirurgicznej AM w Poznaniu Kierownik: prof. dr S. Nowicki.   (URETERS)

TWARDOSZ, Waldyslaw

Spontaneous rupture of the kidney. Polski przegl.chir. 27
no: 10:1009-1014 Oct. '55.

1. Z I Kliniki Chirurgicznej A.M. w Poznaniu. Kierownik:
prof. dr St. Nowicki. Poznan, ul. Dluga 1/2.
        (KIDNEYS, rupture,
            spontaneous)

POLAND

GNILKA, Tadeusz, TWARDOSZ, Wladyslaw, and ADAMSKI, Cyryl;
Second Clinic of Obstetrics and Gynecology (II Klinika Poloz-
nictwa i Chorob Kobiecych) (Director: Docent, Dr. E. HOWORKA)
and First Surgical Clinic (I Klinika Chirurgiczna) (Director:
Prof. Dr. St. NOWICKI), both of the AM [Akademia Medyczna,
Medical Academy] in Poznan

"Results of Immediate and Late Surgical Treatment of Injuries
to the Urinary Tract Following Gynecological Operations."

Warsaw, Polski Tygodnik Lekarski, Vol 18, No 32, 5 Aug 63,
pp 1194-1196

Abstract: [Authors' English summary modified] Suture of in-
juries to the urinary bladder or tract sustained during gyne-
cological operations, whether performed immediately or later,
is most successful provided care is taken to assure free pas-
sage of urine and prevent infection. Type and manner of opera-
tion is of significance. All 14 cases studied showed good
results in control examination 1-5 years after operation.
There are 18 references: One (1) Soviet, 8 Polish, 5 German,
and 4 English.

1/1

PILAWSKI, A.; TWARDOSZ, Wl.; JASINSKI, K.

Clinical applications of photoplethysmography. Polski tygod.
lek. 11 no.16:673-679 16 Apr 56.

1. Z Zakladu Fizyki Lekarskiej AM w Poznaniu, kier. z. prof.
A. Pilawski z I Kliniki Chirur. AM w Pozn., kier. prof. dr.
St. Nowicki; z I Kliniki Chorob Wewn. AM w Poznaniu; kier.
prof. dr. W. Kwasniewski, Poznan, ul. Dluga 1/2.
        (PLETHYSMOGRAPHY,
            photoplethysmography (Pol))

TWARDOSZ, Wladyslaw

Procedure in anuria. Polski przegl. chir. 28 no.5:489-492
May 56.

1. Z I Kliniki Chirurgicznej A.M. w Poznaniu, Kierownik: prof.
dr. St. Nowicki, Poznan, ul. Dluga 1, I. Klinika Chirurgiczna
A.M.
    (ANURIA, therapy,
        (Pol))

TWARDOSZ, Wladyslaw; WALCZAK, Mieczyslaw

Basement membrane in the development of the rabbit kidney. Pat.
Pol. 15 no.2:199-205 Ap-Je '64

1. Z I Kliniki Chirurgicznej Akademii Medycznej w Poznaniu
(Kierownik: prof. dr. med. St. Nowicki) i z II Kliniki
Chorob Dziecięcych Akademii Medycznej w Poznaniu (Kierownik:
prof. dr. med. O. Szczepski).

POLAND / General Problems of Pathology. Tumors.   U
Human Neoplasms.

Abs Jour: Ref Zhur-Biol., No 11, 1958, 51803.

Author : Jasinski, K., Twardosz, W.
Inst   : Not given.
Title : Megakariocytic Leukemia.

Orig Pub: Przegl. lekar., 1955, 11, No 10, 300-305.

Abstract: In 2 patients with marked enlargement of the
spleen and general malaise, with absence of
changes in the peripheral blood, a large number
of cells were noted in the bone marrow smear,
among which there were many megakariocytes with
delayed maturation. On one patient, splenec-
tomy was performed, following which, his con-
dition deteriorated very rapidly. The thrombo-

Card 1/2